

What is claimed is:

1. An isolated nucleic acid molecule selected from the group consisting of:
  - a) a nucleic acid molecule comprising a nucleotide sequence which is at least 45% identical to the nucleotide sequence of SEQ ID NO:2, 14 or 15, the cDNA insert of the plasmid deposited with the ATCC® as Accession Number 207180 or patent deposit Number PTA-225, or a complement thereof;
  - b) a nucleic acid molecule comprising a nucleotide sequence which is at least 50% identical to the nucleotide sequence of SEQ ID NO:1, the cDNA insert of the plasmid deposited with the ATCC® as Accession Number 207180, or a complement thereof;
  - c) a nucleic acid molecule comprising a fragment of at least 300 nucleotides of the nucleotide sequence of SEQ ID NO:1, 2, 14 or 15, the cDNA insert of the plasmid deposited with the ATCC® as Accession Number 207180 or patent deposit Number PTA-225, or a complement thereof;
  - d) a nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:3 or 16, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC® as Accession Number 207180 or patent deposit Number PTA-225; and
  - e) a nucleic acid molecule which encodes a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:3 or 16, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC® as Accession Number 207180 or patent deposit Number PTA-225, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:3 or 16, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC® as Accession Number 207180 or patent deposit Number PTA-225.
2. The isolated nucleic acid molecule of claim 1, which is selected from the group consisting of:
  - a) a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, 2, 14 or 15, the cDNA insert of the plasmid deposited with the ATCC® as Accession Number 207180 or patent deposit Number PTA-225, or a complement thereof; and

- b) a nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:3 or 16, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC® as Accession Number 207180 or patent deposit Number PTA-225.
- 3. The nucleic acid molecule of claim 1 further comprising vector nucleic acid sequences.
- 4. The nucleic acid molecule of claim 1 further comprising nucleic acid sequences encoding a heterologous polypeptide.
- 5. A host cell genetically engineered to contain the nucleic acid molecule of claim 1.
- 6. The host cell of claim 5 which is a mammalian host cell.
- 7. A non-human mammalian host cell genetically engineered to contain the nucleic acid molecule of claim 1.
- 8. An isolated polypeptide selected from the group consisting of:
  - a) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:3 or 16, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:3 or 16;
  - b) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:3 or 16, or the amino acid sequence encoded by the cDNA insert of plasmids deposited with the ATCC® as Accession Number 207180 or patent deposit Number PTA-225, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:2 or 15, or a complement thereof under stringent conditions;
  - c) a polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 45% identical to a nucleic acid

comprising the nucleotide sequence of SEQ ID NO:2 or 15, or at least 98% to a nucleic acid comprising the nucleotide sequence of SEQ ID NO:2 or 15, or a complement thereof; and

- d) an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to the nucleic acid comprising SEQ ID NO:2 or 15 under hybridization conditions of hybridization in 6XSSC at 45°C and washing in 0.2XSSC, 0.1% SDS at 65°C.

9. The isolated polypeptide of claim 8 comprising the amino acid sequence of SEQ ID NO:3 or 16.

10. The polypeptide of claim 8 further comprising heterologous amino acid sequences.

11. A substantially purified antibody which immunospecifically binds to a polypeptide of claim 8.

12. The non-human antibody of claim 11, wherein the antibody is a non-human antibody.

13. A humanized antibody which immunospecifically binds to a polypeptide of claim 8.

14. A Fab fragment which immunospecifically binds to a polypeptide of claim 8.

15. The antibody of claim 11, wherein the antibody is a human antibody

16. The antibody of claim 11, 12, 13 or 15, wherein the antibody is a monoclonal antibody.

17. A method for producing a polypeptide selected from the group consisting of:
- a) a polypeptide comprising the amino acid sequence of SEQ ID NO:3 or 16;
  - b) or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC® as Accession Number 207180 or patent deposit Number PTA-225;
  - c) a polypeptide comprising a fragment of the amino acid sequence of SEQ ID NO:3 or 16, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC® as Accession Number 207180 or patent deposit Number PTA-225, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:3 or 16, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC® as Accession Number 207180 or patent deposit Number PTA-225; and
  - d) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:3 or 16, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC® as Accession Number 207180 or patent deposit Number PTA-225, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1 or 14, or a complement thereof under stringent conditions;

comprising culturing the host cell of claim 5 under conditions in which the nucleic acid molecule is expressed.

18. A method for detecting the presence of a polypeptide of claim 8 in a sample, comprising:
- a) contacting the sample with a compound which selectively binds to a polypeptide of claim 8; and
  - b) determining whether the compound binds to the polypeptide in the sample.
19. The method of claim 18, wherein the compound which binds to the polypeptide is an antibody.
20. A kit comprising a compound which selectively binds to a polypeptide of

claim 8 and instructions for use.

21. A method for detecting the presence of a nucleic acid molecule of claim 1 in a sample, comprising the steps of:

- a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and
- b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample.

22. The method of claim 20, wherein the sample comprises mRNA molecules and is contacted with a nucleic acid probe.

23. A kit comprising a compound which selectively hybridizes to a nucleic acid molecule of claim 1 and instructions for use.

24. A method for identifying a compound which binds to a polypeptide of claim 8 comprising the steps of:

- a) contacting a polypeptide, or a cell expressing a polypeptide of claim 8 with a test compound; and
- b) determining whether the polypeptide binds to the test compound.

25. The method of claim 24, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:

- a) detection of binding by direct detecting of test compound/polypeptide binding;
- b) detection of binding using a competition binding assay; and
- c) detection of binding using an assay for TANGO 268-mediated signal transduction.

26. The antibody of claim 11, 12 or 13 which is conjugated to a therapeutic moiety.

27. The antibody of claim 11, 12 or 13 which is linked to a detectable substance.

28. A substantially purified antibody which specifically binds to an extracellular domain of the amino acid sequence of SEQ ID NO:3 or 16.

29. The antibody of claim 28, wherein the extracellular domain comprises amino acid residues 21 to 269 of SEQ ID NO:3 or amino acid residues 22 to 267 of SEQ ID NO:16.

30. The antibody of claim 29, wherein the extracellular domain further comprises an immunoglobulin-like domain.

31. A single chain Fv (scFv) comprising:

- (a) a VH CDR1 having an amino acid sequence of SEQ ID NO:49, 55, 61 or 67;
- (b) a VH CDR2 having an amino acid sequence of SEQ ID NO:50, 56, 62 or 68; and
- (c) a VH CDR3 having an amino acid sequence of SEQ ID NO:51, 57, 63 or 69.

32. A scFv comprising:

- (a) a VL CDR1 having an amino acid sequence of SEQ ID NO:52, 58, 64 or 70;
- (b) a VL CDR2 having an amino acid sequence of SEQ ID NO:53, 59, 65 or 71; and
- (c) a VL CDR3 having an amino acid sequence of SEQ ID NO:54, 60, 66 or 72.

33. A scFv comprising:
- (a) a VH CDR1 having an amino acid sequence of SEQ ID NO:49, 55, 61 or 67;
  - (b) a VH CDR2 having an amino acid sequence of SEQ ID NO:50, 56, 62 or 68;
  - (c) a VH CDR3 having an amino acid sequence of SEQ ID NO:51, 57, 63 or 69;
  - (d) a VL CDR1 having an amino acid sequence of SEQ ID NO:52, 58, 64 or 70;
  - (e) a VL CDR2 having an amino acid sequence of SEQ ID NO:53, 59, 65 or 71; and
  - (f) a VL CDR3 having an amino acid sequence of SEQ ID NO:54, 60, 66 or 72.
34. An antibody comprising:
- (a) a VH CDR1 having an amino acid sequence of SEQ ID NO:49, 55, 61 or 67;
  - (b) a VH CDR2 having an amino acid sequence of SEQ ID NO:50, 56, 62 or 68; and
  - (c) a VH CDR3 having an amino acid sequence of SEQ ID NO:51, 57, 63 or 69.
35. An antibody comprising:
- (a) a VL CDR1 having an amino acid sequence of SEQ ID NO:52, 58, 64 or 70;
  - (b) a VL CDR2 having an amino acid sequence of SEQ ID NO:53, 59, 65 or 71; and
  - (c) a VL CDR3 having an amino acid sequence of SEQ ID NO:54, 60, 66 or 72.
36. An antibody comprising:

- (a) a VH CDR1 having an amino acid sequence of SEQ ID NO:49, 55, 61 or 67;
- (b) a VH CDR2 having an amino acid sequence of SEQ ID NO:50, 56, 62 or 68;
- (c) a VH CDR3 having an amino acid sequence of SEQ ID NO:51, 57, 63 or 69;
- (d) a VL CDR1 having an amino acid sequence of SEQ ID NO:52, 58, 64 or 70;
- (e) a VL CDR2 having an amino acid sequence of SEQ ID NO:53, 59, 65 or 71; and
- (f) a VL CDR3 having an amino acid sequence of SEQ ID NO:54, 60, 66 or 72.

37. The antibody of claim 34, 35 or 36, wherein the antibody is a monoclonal antibody.

38. The antibody of claim 34, 35 or 36, wherein the antibody is a human antibody.

39. The antibody of claim 34, 35 or 36, wherein the antibody is a humanized antibody.

40. The antibody of claim 34, 35 or 36, wherein the antibody is a Fab fragment.

41. The antibody of claim 34, 35 or 36 which is conjugated to a therapeutic moiety.

42. The antibody of claim 34, 35 or 36 which is linked to a detectable substance.



43. A mouse monoclonal antibody produced by mouse hybridoma cell line 9012.2, 1P10.2, 8M14.3, 9E18.2 or 744.6 deposited with the ATCC® as patent deposit Number PTA-1746, patent deposit Number PTA-1747, patent deposit Number PTA-1748, patent deposit Number PTA-1749 or patent deposit Number PTA-1750.

44. The antibody of claim 43 which is conjugated to a therapeutic moiety.

45. The antibody of claim 43 which is linked to a detectable substance.

46. A scFv having the amino acid sequence of A4, A9, A10 or C3 deposited with the ATCC® as patent deposit Number PTA-\_\_\_\_, patent deposit Number PTA-\_\_\_\_, patent deposit Number PTA-\_\_\_\_, patent deposit Number PTA-\_\_\_\_ or patent deposit Number PTA-\_\_\_\_.

47. The scFv of claim 46 which is conjugated to a therapeutic moiety.

48. The scFv of claim 46 which is linked to a detectable substance.

49. A pharmaceutical composition comprising an antibody as in claim 11, 12 or 13, and a pharmaceutically acceptable carrier.

50. A pharmaceutical composition comprising a Fab fragment as in claim 14, and a pharmaceutically acceptable carrier.

51. A pharmaceutical composition comprising an antibody as in claim 34, 35 or 36, and a pharmaceutically acceptable carrier.

52. A pharmaceutical composition comprising an antibody as in claim 43, and a pharmaceutically acceptable carrier.

53. A pharmaceutical composition comprising an antibody as in claim 46, and a pharmaceutically acceptable carrier.

54. A kit comprising an antibody as in claim 11, 12 or 13 and instructions for use.

55. A kit comprising a Fab fragment as in claim 14 and instructions for use.

56. A kit comprising an antibody as in claim 34, 35 or 36 and instructions for use.

57. A kit comprising an antibody as in claim 43 and instructions for use.

58. A kit comprising a scFv as in claim 46 and instructions for use.